Achieving Quality Software: Including Its Application to Safety-Related Systems, (Third edition). By David J. Smith. Chapman & Hall, New York. (1987). 285 pages. $69.95.

Contents:

Foreword. Preface. Acknowledgements. I. The background to software engineering and quality. 1. The meaning of quality in software. 2. Software failures and the life cycle. 3. Integrity and the safety life cycle. II. Guidance, legislation and liability. 4. Legislation and liability. 5. Current standards and guidelines. 6. Certification and competence. III. Achieving software quality. 7. The traditional approach. 8. Formal methods in requirements. 9. Formal methods in design. 10. Review and test. 11. Static analysis. 12. Languages and processors. 13. Achieving fault tolerance in design. IV. Management issues. 14. Software management issues. 15. Metrics and modelling. V. Case study. 16. Software system design exercise—Addressable detection system. Appendices. 1. Checklists. 2. Glossary of terms and abbreviations. 3. Bibliography and references. Index.

High Noon on the Electronic Frontier: Conceptual Issues in Cyberspace. By Peter Ludlow. MIT Press, Cambridge, MA. (1996). 536 pages. $30.00.

Contents:

Series foreword. Foreword (Mike Godwin). Preface. Acknowledgements. I. Piracy, property rights, etc.: Does information "Want to be free?" 1. Selling wine without bottles: The economy of mind on the global net (John Perry Barlow). 2. Why patents are bad for software (Simson L. Garfinkel, Richard M. Stallman, and Mitchell Kapor). 3. Against software patents (The League for Programming Freedom). 4. Debunking the software patent myths (Paul Heckel). 5. So you want to be a pirate? (*Pirate* editorial). 6. Some "property" problems in a computer crime prosecution (Mike Godwin). II. How should we respond to exploratory hacking/cracking/phreaking? 7. The conscience of a hacker (The Mentor). 8. The prisoner: Phiber Optik goes directly to jail (Julian Dibbell). 9. Concerning hackers who break into computer systems, Postscript, June 11, 1995 (Dorothy E. Denning). III. Encryption, privacy, and crypto-anarchism. 11. How PGP works/Why do you need PGP? (Philip R. Zimmermann). 12. Crypto rebels (Steven Levy). 13. Jackboots on the Infobahn (John Perry Barlow). 14. The Clipper Chip will block crime (Dorothy E. Denning). 15. The Denning-Barlow Clipper Chip Debate (Dorothy E. Denning and John Perry Barlow). 16. Achieving electronic privacy (David Chaum). 17. A crypto anarchist manifesto (Timothy C. May). 18. Introduction to BlackNet (Timothy C. May). 19. BlackNet worries (Timothy C. May). IV. Censorship and sysop liability. 20. Censoring cyberspace (Philip Elmer-Dewitt). 21. ACLU letter to CMU on alt.sex newsgroups. 22. Virtual community standards: BBS oscenity case raises new legal issues (Mike Godwin). 23. Public networks and censorship (Jeffrey Shallit). 24. Sex and the single sysadmin: The risks of carrying graphic sexual materials (Mike Godwin). 25. *Computer and Academic Freedom News*'s list of banned files on college campuses (Compiled by Carl Kadie). V. Self and community online. 26. Gender swapping on the Internet (Amy S. Bruckman). 27. Text-based virtual realities: Identity and the cyborg body (Elizabeth M. Reid). 28. MUDding: Social phenomena in text-based virtual realities (Pavel Curtis). 29. A rape in cyberspace, or How an evil clown, a Haitian trickster spirit, two wizards, and a cast of dozens turned a database into a society (Julian Dibbell). 30. Communication and community on Internet relay chat: Constructing communities (Elizabeth M. Reid). 31. A slice of my life in my virtual community (Howard Rheingold). 32. pandora's vox: on community in cyberspace (humdog). 33. Losing your voice on the Internet (James DiGiovanna). Appendices. 1. Crime and puzzlement (John Perry Barlow. 2. Hardware 1: The Italian hacker crackdown (Peter Ludlow). 3a. Information about electronic frontiers Italy (ALCEI); About ALCEI membership. 3b. Why I have joined ALCEI (Bruce Sterling). Contributors. Sources. Index.

Control Flow Semantics. By Jaco de Bakker and Erik de Vink. MIT Press, Cambridge, MA. (1996). 564 pages. $50.00.

Contents:

Series foreword. Preface. The 27 languages. Introduction. I. Fundamentals. 1. Recursion and iteration. 2. Nondeterminacy. 3. Variations. II. Linear models. 4. Uniform parallelism. 5. Unbounded nondeterminism. 6. Locality. 7. Nonuniform parallelism. 8. Recursion revisited. 9. Nested resumptions. III. Models based on domain equations. 10. Domain equations and bisimulation. 11. Branching domains at work. 12. Extensions of nonuniform parallelism. 13. Concurrent object-oriented programming. 14. Atomization, commit, and action refinement. IV. Perspectives. 15. The control flow kernel of logic programming. 16. True concurrency. 17. Full abstractness. 18. Second-order assignment. Appendices. A. Proofs of topological theorems. B. Direct operational semantics. C. Domain equations. D. Further reading. Bibliography. Author index. Subject index.

Nanotechnology: Molecular Speculations on Global Abundance. Edited by B. C. Crandall. MIT Press, Cambridge, MA. (1996). 214 pages. $17.00.

Contents:

Preface. 1. Molecular engineering (B.C. Crandall). Part I. Mostly inside. 2. In-vivo nanoscope and the "Two-Week Revolution" (Ted Kaehler). 3. Cosmetic nanosurgery (Richard Crawford). 4. Diamond teeth (Edward M. Reifman). Part II. Mostly outside. 5. Early applications (Harry Chesley). 6. The companion: A very personal computer (John Papiewski). 7. Trivial (uses of) nanotechnology (H. Keith Henson). 8. Nanotech hobbies (Tom McKendree). Part III. Windows and environments. 9. Phased array optics (Brian Wowk). 10. Utility fog: The stuff that dreams are made of (J. Storrs Hall). Postscript. Contributors. Notes. Index.